

REMARKS/ARGUMENTS

Claims 1-36 are pending in the present application.

Claims 1, 5, 11, 12, 16 and 32 are amended.

Claims 33-36 are newly entered.

All claims are believed to be patentable for, at least, the reasons set forth herein.

REJECTIONS UNDER 35 U.S.C. 112

Claims 1-20 are rejected under 35 U.S.C. § 112, first paragraph, for failing to comply with the written description requirement.

Claims 1, 5, 11, 12 and 16 have been amended to specifically recite a cross-linked hydrophilic support. The amendments render the rejection moot.

Claims 2-4 and 6-10 ultimately depend from claim 1 and are patentable for, at least, the same reasons as claim 1.

Claims 13-15 and 17-20 ultimately depend from claim 12 and are patentable for, at least, the same reasons as claim 12.

The rejection of claims 1-20 under 35 U.S.C. § 112, first paragraph, is rendered moot by amendment and notice thereof is respectfully requested.

REJECTIONS UNDER 35 U.S.C. 103

Claims 1-4, 6-15 and 17-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leenders et al. (US 5,501,150) in view of Boston (US 4,223,087).

Leenders is cited as teaching a method of manufacturing a printing plate in which an oxidizing/fixing solution is applied, image-wise, via ink jet printing to a silver image. Boston is cited as teaching a similar method in which oxidizing/fixing solution is specified to include amidine compounds. Applicants respectfully submit that the Office has improperly construed Leenders et al. and that the rejection is improper.

In Leenders et al. a reducible silver compound, a reducing agent and physical development nuclei, that catalyze the reduction of the silver compound to silver metal are brought together. All embodiments in Leenders et al. require that a layer be applied to the surface of the printing plate precursor. In one embodiment the development nuclei and reducing agent are present in the same layer or in different layers in ink-permeable relationship with one another (see col. 6, lines 31-35). In a second embodiment development nuclei and reducible silver compound are present in the same layer or in different layers in ink-permeable relationship with one another (see col. 6, lines 45-50). In a third embodiment, reducing agent and reducible silver compound are present in the same layer or in

different layers in ink-permeable relationship with one another (see col. 7, lines 4-8).

As illustrated in the example of Leenders et al., an anodized aluminum base and a subbed polyethylene terephthalate film are coated with a hydrophilic layer, provided with a binder layer containing PdS nuclei and an aqueous solution of the reducing agent ethyl gallate. The hydrophilic layer of Leenders et al. can be compared with the printing plate precursors used in the present invention as disclosed in the first two paragraphs on page 15 of the present specification. An ink consisting of a solution of ammoniacal silver nitrate was then applied imagewise to the thus coated and prepared printing plate precursors thereby forming a silver image which was rendered oleophilic and lithographic ink receptive by spraying it with an oleophilizing composition containing 1-allyl-2-imidazoline-thione. It is clear from this inventive example that the silver image reacts directly with the oleophilizing solution containing 1-allyl-2-imidazolidine-thione. A binder layer is present between the surface of the printing plate precursor and the silver image.

Applicant contends that the provision of at least one binder layer on the printing plate precursor is essential to the invention of Leenders, the binder layer containing two of the three ingredients essential to the silver image-forming process.

In the inventive examples the PdS-nuclei, present in a binder layer, on the printing plate precursor catalyze the reduction of the ammoniacal silver nitrate by the ethyl gallate. This is analogous to the silver nuclei produced by the exposure of photothermographic materials catalyzing the reduction of organic silver salt by the reducing agent present.

Applicant further contends that, since the binder layer containing at least one ingredient is necessary for the realization of the silver image-forming process, Leenders et al. cannot be construed as allowing for the possibility of direct contact between the printing plate precursor and the silver-image. Such contact is also not necessary for the realization of a printing plate, since the binder layer is a hydrophilic layer and the silver image is hydrophobized by the hydrophobizing solution.

Boston teaches in claim 1:

"A method for rendering oleophilic a surface having metallic silver in an imagewise pattern thereon comprising contacting said metallic silver with a homogeneously stable acidic aqueous salt solution comprising a ferricyanide anion and an organic cation complexing agent capable of forming a water-insoluble, oleophilic complex with oxidized silver, said cation comprising a protonated nitrogen-substituted hydrocarbon compound containing a formal imine group therein, said imine group being in resonant association with adjacent groups within said hydrocarbon compound."

which does not require contact between the amidine compounds of Boston and the printing plate precursor.

If one skilled in the art were to replace the silver oleophilizing compound used in the process according to Leenders et al. with an amidine compound according to Boston et al. they would realize a process in which a silver image would be formed on a hydrophilic layer coated on a printing plate precursor and, in a further step, this silver image would be hydrophobized using an amidine compound according to Boston et al.

This combination is totally different from the present invention as set forth in claim 1 which teaches:

"A method for the preparation of a lithographic printing plate, said method comprising dispensing information-wise by means of the ink-jet printing droplets of a fluid onto a surface of a lithographic receiver, said surface being a crosslinked hydrophilic layer on a flexible support, a metallic surface, an oxidized metallic surface or an anodized aluminum surface, wherein said fluid contains an oleophilizing compound in the form of a homogenous solution or a stable colloidal dispersion, said oleophilizing compound having in its chemical structure a functional amidine group capable of reacting with said surface of said lithographic receiver. . ." (emphasis added)

i.e. the oleophilizing compound reacts with a surface of the lithographic receiver, not with any other surface. This construction of claim 1 is further supported by the statement at page 8, lines 14-17, of the present specification, which states that:

"The essence of the present invention is the presence in the ink jet fluid of an oleophilizing compound having in its chemical structure a functional amidine group capable of reacting with the surface of the lithographic receiver." (emphasis added)

The Office contends that this capability of the chemical structure to react with the surface of the lithographic receiver is not further elucidated in the present application. In contrast, Applicants contend that this is illustrated in the inventive examples on the basis of the following test (see age 17, lines 31 to page 18, line 3):

"The oleophilizing agent was dissolved in isopropanol in a concentration of 0.1 to 2% w/w. Next a 6 μ l droplet of the ink fluid was jetted on a lithographic electrochemically grained and anodized receiver as described above. The local oleophilicity was tested by mounting the plate on an ABDICK 360 press and using VAN SON RUBBERBASE as ink (trademark of Van Son Co.) and 2% TAME (trademark of Anchor/Lithchemko Co.) as fountain. The ink uptake of the droplet image was evaluated."

Table I shows the ink uptake upon use of compounds I and II, according to the present invention was excellent indicating high oleophilizing capacity with these compounds.

The example clearly illustrates the advantage offered by the improved process as well as the distinction with regards to Leenders et al. and Boston et al.

For the reasons set forth herein Applicants respectfully submit that the present claimed inventions are neither taught, nor suggested, by the combination of Leenders et al. and Boston et al. A notice of allowance is earnestly solicited.

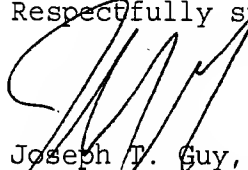
ALLOWABLE CLAIMS

Claims 5, 16 and 32 were previously objected to as being dependent upon a rejected base claim. Claims 5, 16 and 32 are now in independent form including all of the limitations of the base claim and any intervening claims.

CONCLUSIONS

Claims 1-36 are pending in the present application. All claims are in condition for allowance and notice thereof is respectfully requested.

Respectfully submitted,



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